

## PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY

MEETING OF OCTOBER 1, 1940

President Klots in the chair with thirty members and visitors present.

The following were proposed for membership: Messrs. John C. Pallister, 2501 Knapp Street, Yacht Marion the II, Brooklyn, N. Y.; F. Courtney Stone, 1349 Lexington Ave., New York City; Leonard J. Sanford, American Museum of Natural History, New York City; David M. Bigelow, 1701 East Speedway, Tucson, Arizona.

Dr. Ruckes announced with regret the death on July 2 of Edward P. Van Duzee, foremost hemipterist in the country.

Members reported on their summer collecting experiences. Dr. Melander said that from June 5 until Sept. 10, he and Mrs. Melander travelled to the Pacific States and covered over 10,000 miles, collected 4,000 Diptera, 3000 feet of film (Kodachrome) and 1000 still pictures.

Mr. Kisiuk revealed the fact that great changes are taking place in world trade. Strange insects are being found in hosts that the Division of Foreign Plant Quarantine never had occasion to inspect before. Material from Spain, South America, Portugal and the Mediterranean is constantly bringing new pests to light.

Mr. Davis exhibited some of the 17-year locusts caught in 1923 and their progeny in 1940. He noted some of the new records in Long Island of Brood XIV.

Mr. Teale showed some of the pictures he made of the various stages of emergence of the 17-year locust this year on Long Island.

Mr. Bird urged that entomologists make an effort to make the public conscious of the good insects do rather than to have them considered as pests to be destroyed whenever the opportunity arises.

Dr. Hartzell spent some of the summer in the Black Hills of South Dakota where the grasshopper situation is very severe. He noticed that corn grown by the Indians on the reservation was not apparently attacked to the same extent as white man's corn. The grasshoppers are so numerous that education is being carried on as to where they lay their eggs, which is usually about 300 feet from the cornfields in a grass plot. While he was there the county carried on a grasshopper egg pod contest. Some 70 pounds of eggs were brought in, which means an estimated 15 million eggs.

LUCY W. CLAUSEN, *Secretary*.

MEETING OF OCTOBER 15, 1940

President Klots in the chair with thirty-eight members and visitors present.

The following were elected to membership: Messrs. John C. Pallister, F. Courtney Stone, Leonard J. Sanford and David M. Bigelow.

Mr. Louis Roth, 351 E. 45th Street, Brooklyn was proposed for membership.

Mr. Comstock explained that the American Museum of Natural History Entomological Department has a fine exhibition, in the Foyer, of a recent acquisition of a *Morpho* collection.

Dr. Spieth announced that membership cards could be obtained from the Secretary at the next meeting.

Dr. Davis exhibited some Florida species of cicadas collected recently by Dr. Ruckes.

The speaker of the evening, Dr. A. B. Klots, then addressed the members on "Problems of Arctic Alpine Distribution." Dr. Klots' talk was illustrated with movies and lantern slides.

LUCY W. CLAUSEN, *Secretary*.

#### MEETING OF NOVEMBER 19, 1940

President Klots in the chair with fifty-five members and visitors present.

An invitation to send a delegate to the ceremonies to dedicate a new Natural Resources Building on the campus of University of Illinois at Urbana, Illinois on November 15 was received.

Mr. Louis Roth was elected to membership.

The following were proposed for membership: Dr. Walter Schiller, Director of Laboratories, Cook County Hospital, Chicago, Illinois, and Mr. Malvin Hoffman, 2721 Morris Ave., New York City.

The speaker of the evening, Dr. James Forbes of Fordham University, was introduced and spoke on "Some Observations on the Carpenter Ant." Dr. Forbes illustrated his talk with stained whole mounts and diagrammatic drawings. An Abstract of Dr. Forbes' talk follows.

LUCY W. CLAUSEN, *Secretary*.

#### OBSERVATIONS ON THE INTERNAL ANATOMY OF THE CARPENTER ANT

1. The first part of the digestive system consists of the buccal tube, the infrabuccal chamber, the pharynx with the post-pharyngeal glands, the oesophagus, and the crop. Histologically this region is composed of a flattened type of epithelium externally covered by longitudinal and circular muscle and internally covered by a chitinous intima. The intima bears hair-like processes and spines in some regions, and in the crop it is thrown into crypt-like folds. The post-pharyngeal glands are structurally similar to the digestive tube but do not possess any muscle coats.

2. The proventriculus or gizzard is divided into three regions: the calyx, the bulb, and the cylindrical section. In this organ the intima, epithelium, and muscle coats are very much modified in the different regions. It is similar in shape and structure to other closely related Camponotinae.

3. The ventriculus is a large elliptical-shaped sac which occupies about one-half the space in the gaster. It is lined with regenerative and secretory cells.

4. The intestine is structurally similar to the first part of the digestive tract, but it lacks the longitudinal muscle fibers.

5. The number of Malpighian tubules varies from 18-21, but the majority of workers have 20.

6. The rectum is a large sac with thin, transparent walls, which bear six rectal pads. The anus has a well developed sphincter muscle.

7. Each cell of the maxillary glands has a very fine cell-duct which unites with a larger collecting-duct. The main-ducts open, one on each side, into the posterior part of the buccal tube.

8. The collecting-ducts of the salivary glands lead into large reservoirs before uniting to form the main-duct which opens into a salivarium between the hypopharynx and the labium.

9. The poison apparatus is of the pulvinate form which is confined to the Camponotinae.

10. The ovarioles of the non-functional ovaries vary in number from 1-3 in each ovary, and they are of the polytrophic type. No seminal receptacle was found in any of the workers dissected.

11. The heart occupies the usual position in the gaster, and it has five pairs of ostia. The heart wall is one cell in thickness, and paired nuclei lie along the lateral edges of the tube. The aorta lies above the oesophagus in the petiole. In the metathoracic region it lies on the right of the oesophagus, and then passes under the oesophagus in the mesothorax. In the prothorax it again comes up on the dorsal side of the oesophagus to open into the head.

12. The ventral nerve cord has three ganglia in the thorax, one in the petiole, and three in the gaster. The terminal ganglion of the gaster is a fusion of three ganglia.

13. Ten pairs of spiracles open on the sides of the body. In the first segment of the gaster the longitudinal tracheal trunks dilate to form tracheal sacs. The branches to the viscera arise in groups on the longitudinal trunk opposite the entrance of the stigmatic trunk.—JAMES FORBES.

#### MEETING OF DECEMBER 3, 1940

President Klots in the chair with forty-eight members and visitors present.

The following were elected to membership: Dr. Walter Schiller and Mr. Malvin Hoffman.

The Society noted with extreme regret the death on November 9 of Dr. Grace A. Sandhouse. Dr. Sandhouse was in charge of Hymenoptera at the National Museum and devoted herself to the study of Halictidæ.

Mr. Schwarz reported also the death of Dr. Otto Plath, Professor at Boston University, who was a student of bumble bees.

The speaker of the evening, Dr. Stanley Bromley, of the Bartlett Tree Research Laboratories, spoke on "Insects in Relation to the Shade Trees." Dr. Bromley's talk was illustrated with Kodachrome slides showing the insects about which he spoke and the damage peculiar to each.

LUCY W. CLAUSEN, *Secretary*.

#### MEETING OF DECEMBER 17, 1940

President Klots in the chair with fifty-three members and visitors present.

Dr. Klots appointed the following to serve on the Nominating Committee: Dr. H. Ruckes, Dr. Wm. Moore and Mr. E. Bell.

Dr. Spieth then reviewed and discussed the recent advances in the chemistry and biology of the insect exoskeleton.

LUCY W. CLAUSEN, *Secretary*.

#### MEETING OF JANUARY 7, 1941

The annual meeting of the New York Entomological Society was held on

January 7, 1941, in the American Museum of Natural History; President Klots in the chair with fifty-three members and visitors present.

The following officers were elected for the year 1941:

President .....	Max Kisliuk
Vice-President .....	Harry B. Weiss
Secretary .....	Miss Annette L. Bacon
Treasurer .....	Dr. H. T. Spieth
Librarian .....	L. James Sanford
Curator .....	Dr. W. J. Gertsch
Executive Committee	
William T. Davis	Harry B. Weiss
Dr. William Procter	E. L. Bell
Dr. Albert Hartzell	Herbert F. Schwarz
F. A. Soraci	Edwin W. Teale
Dr. A. B. Klots	
Publication Committee	

Delegate to the N. Y. Academy of Sciences  
William T. Davis

Mrs. Sherman reported on the progress that Mr. John D. Sherman was making after recovering from a serious operation. A motion was made and carried that the Society send their best wishes for a speedy recovery to Mr. Sherman.

Mr. Robert Fuller then showed color movie film on insects and other animals.

LUCY W. CLAUSEN, *Secretary*.

#### MEETING OF JANUARY 21, 1941

President Kisliuk in the chair, thirty members and visitors present.

President Kisliuk appointed the following committees:

Program: Mr. J. W. Angell, Mr. M. H. Sartor, Dr. H. Hagan.

Auditing: Dr. Wm. Moore, Dr. W. J. Gertsch, Mr. F. S. Blanton.

Field: Mr. A. S. Nicolay, Dr. A. B. Klots, Mr. Wm. P. Comstock.

The Society heard with regret of the serious illness of Mr. Charles W. Leng and instructed the secretary to send an expression of sympathy.

President Kisliuk mentioned the large number of entomological papers presented at the Philadelphia meetings of the A. A. A. S.

A review of Mr. Teale's book, "The Golden Throng," was called to the attention of those present.

Mr. George Rau presented a paper on "Biological Studies of Mealy Bug Parasites."

ANNETTE L. BACON, *Secretary*.

#### MEETING OF FEBRUARY 4, 1941

President Kisliuk in the chair, thirty members and visitors present.

Mr. George C. Becker was proposed for membership in the Society.

The death of Mr. Charles Leng was deeply felt by members of the Society. He had been a member since 1902 and had served as Vice-President for four years, President for five and secretary for nineteen. Several members spoke of the work he had done, emphasizing his personality and recalling his active interest in many fields. Dr. Ruckes moved that Mr. Schwarz be appointed a committee of one to write a letter to the family of Mr. Leng expressing the sincere sympathy of the Society.

President Kisliuk reported the death of Dr. Charles W. Stiles in Baltimore on January 24.

Dr. Ruckes told of finding among the Pentatomidæ a number of specimens having one antenna with four, rather than five, segments—the abnormal one showing symmetrical compensation in that it approximated the length of the normal one and in that the pigment and sensory hairs covered the same proportional area of the distad segments. He requested that anyone finding similar abnormalities in other orders report such cases to him.

Mr. Gaul spoke interestingly on the "Biology of the Vespinae" and illustrated his talk with lantern slides. He discussed a new technique of housing hornet nests in hives in the laboratory. The correlation of biological phenomena with the taxonomic divisions was stressed. The life of the individual and of the colony was discussed as were inquilines and some parasites.

ANNETTE L. BACON, *Secretary*.

#### MEETING OF FEBRUARY 18, 1941

President Kisliuk in the chair, thirty-five members and visitors present.

Mr. George C. Becker, Senior Entomologist, Inspection House, Hoboken, New Jersey, was elected to membership.

A discussion of the request for the exchange of the Journal by the Biological Laboratory of the Science Society of China resulted in the following motion:—The Society will exchange with the Biological Laboratory of the Science Society of China beginning with the March, 1941, issue of the Journal; and that any further application for exchanges shall be brought before the Society as a whole before action is taken.

It was suggested that in a future issue of the Journal, such as the fiftieth anniversary issue, photographs of past presidents of the Society be published. Mr. Teale was appointed a committee on one, with power to act, to get as many photographs as possible of the past presidents.

In the absence of Mr. Weed, the scheduled speaker, Mr. Fred Snyder spoke on "Recent Developments in Pyrethrum, Rotenone and Related Substances."

ANNETTE L. BACON, *Secretary*.

#### MEETING OF MARCH 4, 1941

Former President Klots in the chair, one hundred and thirty-five members and visitors present.

The reading of the minutes of the previous meeting and all business were postponed.

Dr. A. L. Melander showed his colored motion pictures of the western trip he took last summer.

ANNETTE L. BACON, *Secretary*.

#### MEETING OF MARCH 18, 1941

Vice-President Weiss in the chair, thirty members and visitors present.

Dr. George W. Barber, Mr. Mont A. Cazier, Dr. Minnie B. Scotland, Dr. Vincent B. Dethier and Prof. C. A. Thomas were proposed for membership.

The Society heard with regret of the death of Miss Louise Joutel, a former member, and also of the death of Dr. Hugo Kahl of the Carnegie Museum, Pittsburgh.

Dr. Roger B. Friend, State Entomologist of Connecticut, spoke on "Some Economic Insect Problems in Connecticut" and illustrated his talk with lantern slides.

There was an exhibit of 342 specimens representing 242 species of lepidopterous larvæ prepared by Mr. Charles Rummel of Green Village, New Jersey.

ANNETTE L. BACON, *Secretary*.

#### MEETING OF APRIL 1, 1941

Vice-President Weiss in the chair, forty members and visitors present.

Mr. Donald P. Connola was proposed for membership.

Five new members were elected: Dr. George W. Barber, U.S.D.A., New Haven, Conn.; Mr. Mont A. Cazier, American Museum of Natural History; Dr. Vincent G. Dethier, John Carroll University, Cleveland, Ohio; Dr. Minnie B. Scotland, N. Y. State College for Teachers, Albany, N. Y.; and Prof. C. A. Thomas, Kennett Square, Pa.

Dr. D. L. Collins of the Boyce Thompson Institute spoke on "The Dutch Elm Disease in New York State with reference to some of its Entomological Aspects" illustrating his talk with lantern slides and motion pictures.

ANNETTE L. BACON, *Secretary*.

#### MEETING OF APRIL 15, 1941

President Kisliuk in the chair, thirty members and visitors present.

Mr. Donald P. Connola, Boyce Thompson Institute, Yonkers, New York, was elected to membership.

Mr. James A. Rehn of the Academy of Natural Sciences of Philadelphia presented a paper on "Entomological Prehistory, or the Interpretation of some Problems in the Distribution of New World Orthoptera," an abstract of which is appended.

ANNETTE L. BACON, *Secretary*.

#### ENTOMOLOGICAL PREHISTORY

The importance of the Bering Sea land-bridge and those at Panama and at the Isthmus of Tehuantepec in molding the Orthopteran life of North America, and in the cases of the two last mentioned that of South America as well, was emphasized by the speaker. Numerous instances were given of

Holarctic types which intrusively have extended their range over either the eastern or western parts of North America, aside from those of broad boreal distribution on the latter continent. Cases of discontinuous North American distribution of several of these of Palearctic relationship and origin were considered due to Pleistocene glacial conditions having eliminated them in the intermediate territory. As much as three definite Palearctice incursions were recognized among the Nearctic members of the group *Chrysochraontes*.

The discontinuous distribution of certain grassland genera common to North America, Mexico and the south-central part of South America, and their absence from the territory between, was considered to be due to the spread of these genera during a Pliocene period of more extensive grassland, and by the wiping out of much of the latter during the cooler and more humid Pleistocene, with its forest predominance; they were extirpated in much of Central America and northern South America, thus producing their present discontinuous ranges.

Evidence in the Orthoptera for a Central American-Antillean land bridge was reviewed, and this postulate considered the only explanation of numerous orthopteran distributions which cannot readily be explained by drift, currents, rafts or hurricanes, on account of the character, habits and environmental preferences of the genera concerned.—JAMES A. G. REHN.

#### MEETING OF MAY 6, 1941

President Kisliuk in the chair, thirty-five members and visitors present.

The motion that the Treasurer may transfer funds from the savings account to the checking account at his own discretion was approved.

Mr. F. A. Soraci of the New Jersey Department of Agriculture, spoke on "The Behavior of Insects to Light of Various Wave-lengths."

ANNETTE L. BACON, *Secretary*.

#### MEETING OF MAY 20, 1941

Thirty-five members and visitors present.

Since this was a social meeting, no business was transacted.

Plans for the picnic of the Society on Sunday, June 8, at the home of Mr. and Mrs. Chris Olsen in West Nyack, New York, were announced.

Mr. Mont A. Cazier spoke about Entomology and Entomologists in California.

ANNETTE L. BACON, *Secretary*.